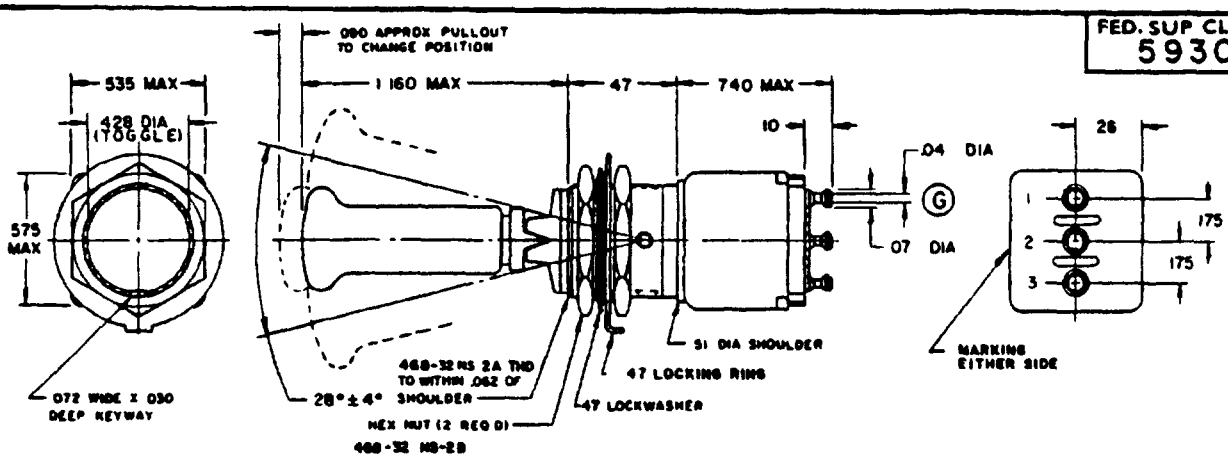

Inches	mm	Inches	mm	Inches	mm
.005	0.13	.072	1.83	.47	11.94
.020	0.51	.090	2.29	.51	12.95
.030	0.76	.10	2.54	.535	13.59
.04	1.02	.175	4.45	.575	14.61
.062	1.57	.26	6.60	.740	18.80
.07	1.78	.428	10.87	1.160	29.46

NOTES:
1. Metric equivalents are given for general information only.
2. Dimensions are in inches.
3. Unless otherwise specified, tolerance is ±.020 (0.51 mm) on two place decimals, and ±.005 (0.13 mm) on three place decimals.
4. Configuration of switch case is optional provided maximum dimensions specified are not exceeded.
5. For hardware detail specifications, see supplement of MIL-S-83731.

DETAIL REQUIREMENTS:

LOCKING COMBINATIONS (KEYING SIDE)

A LOCKED IN THREE POSITIONS	B LOCKED IN CENTER AND DOWN POSITION (KEYING SIDE)	D LOCKED OUT OF CENTER POSITION	E LOCKED IN CENTER POSITION	F LOCKED IN UP POSITION (OPPOSITE KEYING)	G LOCKED IN DOWN POSITION (KEYING SIDE)	H LOCKED OUT OF CENTER AND DOWN POSITION (KEYING SIDE)
J LOCKED OUT OF CENTER AND UP POSITION (OPPOSITE KEYING)	K LOCKED IN CENTER AND UP POSITION (OPPOSITE KEYING)	L LOCKED OUT OF DOWN POSITION (KEYING SIDE)	M LOCKED OUT OF AND INTO UP POSITION (OPPOSITE KEYING)	N LOCKED OUT OF UP POSITION (OPPOSITE KEYING)	P LOCKED OUT OF AND INTO DOWN POSITION (KEYING SIDE)	FIGURES A THRU P DO NOT REPRESENT DETAILS OF CONSTRUCTION THEY SCHEMATICALLY ILLUSTRATE LOCKING CONFIGURATIONS & MOM POSITIONS

CANCELED MS PART NUMBER 1/	SUBSTITUTE PART NUMBER 1/	AVAILABLE LOCKING COMBINATIONS	CIRCUITS MADE WITH TOGGLE LEVER IN KEYING SIDE 1-2	CENTER POSITION	OPPOSITE KEYING SIDE 2-3
MS27720-21	MS27720-21-1	ALL	ON	OFF	ON
-22	-22-1	D,F,G	OFF	NONE	ON
-23	-23-1	D,F,G	ON	NONE	ON
-26	-26-1	F	MOM-ON	NONE	ON
-27	-27-1	E,L,N	MOM-ON	OFF	MOM-ON
-31	-31-1	E,F,K,L,M,N	MOM-ON	OFF	ON

1/ The canceled part numbers are no longer procurable; the substitute part numbers have a lower dielectric withstanding voltage at reduced barometric pressure (see 2 below).

(G) denotes changes

APPROVED 6 MAY 1968 REVISED (A) 16 SEPT 1969 (B) 5 AUG 1971 (C) 22 MAY 1972 (D) 14 MAY 1974 (E) 14 AUG 1984 (F) 16 FEB 1987 (G) 20 MAY 1988

P A Air Force 85 Other Cust Navy - AS Army - ER	INTERNATIONAL INTEREST	TITLE SWITCH, TOGGLE, MINIATURE, SINGLE POLE, TOGGLE SEAL, LEVER LOCK	MILITARY STANDARD MS27720
PROCUREMENT SPECIFICATION MIL-S-83731	SUPERSEDES:		SHEET 1 OF 2

NOTES:

1. All switches on this standard are designed so that the movement of the switch mechanism is opposite to that of the toggle lever.
2. Test voltage for dielectric withstanding voltage at reduced barometric pressure, shall be 400 V rms minimum.
3. Electrical endurance shall be performed for 30,000 cycles.
4. Mechanical endurance shall be performed 50,000 cycles at -65°C and then 50,000 cycles at 85°C.
5. Intermediate current shall be performed for 30,000 cycles.
6. Terminals shall be molded into the switch case and shall accommodate no. 18 awg wire.
7. Locking arrangement: Positive locking shall be accomplished and shall prevent motion of the toggle lever until the locking mechanism is manually released.
8. The force required to release the locking mechanism shall be 3 to 5 pounds.
9. The locking means at the top of the toggle bushing shall be capable of withstanding a torque of 20 lb. inch applied in both directions immediately following the humidity test.
10. Maximum weight shall be .045 lb.
11. Electrical ratings for 28 volts dc and 115 volts ac at 400 Hz. Lamp load = 1 ampere, resistive load = 5 amperes, inductive load = 2 amperes.
12. Part number example: MS27720-21-1A (locking combination 'A').
13. (G) In the event of a conflict between the text of this standard and the reference cited herein, the text of this standard shall take precedence.
14. (G) Referenced Government documents of the issue listed in that issue of the Department of Defense Index of Specifications and Standards (DODISS) specified in the solicitation form a part of this standard to the extent specified herein.

P.A. Air Force 85 Other Cust Navy - AS Army - ER	INTERNATIONAL INTEREST	TITLE: SWITCH, TOGGLE, MINIATURE, SINGLE POLE, TOGGLE SEAL, LEVER LOCK	MILITARY STANDARD MS27720
PROCUREMENT SPECIFICATION MIL-S-83731	SUPERSEDES:		SHEET 2 OF 2